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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/261,017	03/02/1999	HEIKKI KOKKINEN	915.333	7220

4955 7590 11/20/2002

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EXAMINER

BOAKYE, ALEXANDER O

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

11

Office Action Summary

Application No.

09/261,017

Applicant(s)

KOKKINEN, HEIKKI

Examiner

Alexander Boakye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Drawings

1. The drawings are objected to because drawing elements in Figs. 1 and 2 need descriptive labels. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The abstract of the disclosure is objected to because it contains legal term "means" (lines 5, 6, 9, and 11). Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 (line 5) the limitation "means" renders the claim vague since the scope of the claim is unascertainable. The same problem of claim 1 appears in claim 5 (line 2).

4. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohanian et al (US Patent # 6,122,287) in view of Kudo et al. (US Patent # 6, 154,458).

Regarding claim 1 , Ohanian discloses : establishing a signal connection with a terminal (Figs. 2 @ 30 ; column 6, lines 61-64 ; a signaling connection has to be established before the network terminating device 40 communicates with the terminal equipment 30) in a central unit (Fig. 2 @ 40) of a communication system, the terminal (Fig. 2 @ 30) and central unit (FIG.2 @ 40) comprising a network interface (Fig. 2 @ 50 ; the terminal's network work interface is resident in the terminal equipment).

Furthermore, Ohanian teaches steps in which by means of communication between the central unit's network interface (Fig. 2 @ 50) and the terminal's network

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interface (the network interface of the terminal is resident in the terminal equipment) information is created about the signaling protocol (Ohanian teaches data link protocol setup but his invention could also be used for signaling protocol setup since Ohanian teaches end-to-end signaling as shown in Fig. 1) supported by the terminal.

Ohanian fails to disclose the claimed signaling unit. Ohanian teaches data link protocol connection setup but does not explicitly disclose that signaling is started using a signaling unit. However, Kudoh teaches signaling unit (signaling protocol unit at ATM-SW10 and signaling protocol unit at ATM Terminal 12 , Fig. 13 constitute the claimed signaling unit). Kudoh discloses that signaling is started using a signaling unit (signaling protocol unit at ATM-SW10 ; Fig. 13) in the central unit that supports the same signaling protocol as the terminal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kudoh's network system including signaling protocol unit with Ohanian's switched network protocols since Kudoh's data link protocol setup can also be used for signaling protocol setup. The motivation would be to provide capability for the system to set up connection between two devices using signaling protocol.

Regarding claim 2, Ohanian teaches establishing a signaling connection with a terminal (Fig. 2 @ 30 ; column 6, lines 61-64; a signaling connection has to be established before the network terminating device 40 communicates with terminal equipment 30) in a central unit (Fig. 2 @ 40) of a communication system.

Ohanian fails to disclose : a message is sent from the central unit's network interface to the terminal , indicating the signaling protocols supported by the central unit, in response to an answer message sent by the terminal indicating the terminal's selection for signaling protocol, a connection is established between the central unit's network interface and central unit's signaling protocol chosen by the terminal.

Furthermore, Ohanian also does not teach that a point-to-point signaling connection is established between the central unit and the terminal using the signaling protocol selected by the terminal. However, Kudoh teaches a message is sent from the central unit's network interface to the terminal (column 14, lines 49-53), indicating the signaling protocols supported by the central unit, in response to an answer Message (column 15, lines 1-7) sent by the terminal indicating the terminal's selection for signaling protocol (column 15, lines 9-11).

Kudoh teaches that a point-to-point signaling connection is establishing between the central unit (ATM-SW, Fig. 13 is the central unit) and the terminal using the signaling protocol selected by the terminal (column 14, lines 49-57).

Therefore, it would be obvious to one skilled in the art to incorporate Kudoh's signaling protocol unit into Ohanian's network protocol with the motivation being to provide capability for the system to select terminal protocol in order to set up signaling connection.

Regarding claim 3 Ohanian teaches establishing a signaling connection with a terminal (Fig. 2 @ 30 ; column 6, lines 61-64) in a central unit . Ohanian fails to disclose that the message contains a code for signaling protocol . The claimed

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message contains a code for signaling protocol reads on Kudoh's ColdStart Trap containing the signaling information purporting that the signaling protocol is pursuant to the ATM forum (column 14, lines 14-16). It would have been obvious to one skilled in the art to incorporate Kudoh's ColdStar Trap code into Ohanian's network with the motivation benign to provide supporting a particular signaling protocol.

Regarding claim 4, Ohanian teaches establishing a signal connection with a terminal (Fig. 2 @ 30: column 6, lines 61-64). Ohanian does not teach a method characterized in that in response to a situation in which the central unit's capability of supporting various signaling protocols changes, a change message is sent to the terminals indicating the signaling protocols supported by the central unit after the change.

Kudoh teaches a method characterized in that in response to a situation in which the central unit's capability of supporting various signaling protocols changes, a change message is sent to the terminals indicating the signaling protocols supported by the central unit after the change (column 4, lines 40-59; see Fig. 21; column 24, lines 14-21). It would have been obvious to one skilled in the art to incorporate Kudoh's protocol changing unit into Ohanian's network. The motivation would be to provide capability for the system to change the signaling protocol used by the call-in terminal.

Regarding claim 5, Ohanianian discloses means of communicating according to the MAC protocol layer (MAC protocol layer is in Data link layer, Fig. 1) between the central unit's network interface (Fig. 2 @ 50) and the terminal's network interface (Fig. 2 @ 68). Ohanian does not teach signaling unit. Kondoh teaches signaling unit

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(signaling protocol unit at ATM-SW10 and signaling protocol unit at ATM terminal 12, Fig. 13) information is created about the signaling protocol supported by the terminal, and signaling is started using a signaling unit in the central unit that supports the same CC protocol layer signaling protocol as the terminal.

It would be obvious to one skilled in the art to incorporate Kudoh's signaling protocol unit into Ohanian's network with the motivation being to provide signaling between terminal nodes.

Regarding claim 6, Ohanian teaches establishing a signaling connection with a Central unit (Fig. 2 @ 40) in a terminal (Fig.2 @ 30) of a communication system, the terminal (Fig. 2 @ 30) and central unit comprising a network interface (Fig. @ 50; the terminal's network interface is resident in the terminal.

Ohanian does not teach in response to a message sent by the central unit's network interface indicating the signaling protocols supported by the central unit, and answer message is sent from the terminal's network interface indicating the signaling protocol selected by the terminal when the terminal supports a signaling protocol.

Ohanian also does not disclose a connection is established between the terminal's network interface and the terminal's signaling unit.

Kudoh teaches in response to a message sent by the central unit's network interface indicating the signaling protocols supported by the central unit, and answer message (column 15, lines 1-7) is sent from the terminal's network interface indicating the signal protocol(column 15, lines 9-11).

Kudoh also discloses a connection is established between the terminal's network interface and the terminal's signaling unit (connection setup between ATM Terminal 11 and ATM terminal 12 where signaling unit is resident).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kudoh's signaling protocol unit with Ohanian's network with the motivation being to provide capability for the system to communication between terminals using signaling protocols.

Regarding claims 8, and 9, Ohanian discloses network interface (Fig. 2 @ 50), characterized in that it is equipped so as to use with a terminal (Fig. 2 @ 30) of the communication system.

Ohanian does not teach a signaling unit. Ohanian also fails to disclose means for indicating to the terminal the signaling protocols supported by the central unit and means for setting up a signaling connection via the central unit's network interface, using a selected signaling protocol between central and the terminal.

Kudoh's teaches a signaling unit (signaling unit at ATM-AW10 ,Fig. 13) . Kondoh discloses means for indicating to the terminal the signaling protocols supported by the central unit and means for setting up a signaling connection via the central unit's network interface, using a selected signaling protocol between central and the terminal (column 15, line 9-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kudoh's signaling protocol unit with Ohanian's

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network with the motivation being to provide capability for the system to communicate between terminals using signaling protocols.

Regarding claim 10, Ohanian discloses : a communications system comprising a central unit (Fig. 2 @ 40) and terminals (Fig. 2 @ 30), characterized in that it is equipped so as to set up and maintain a signaling connection (column 6, lines 61-64) between the central unit (Fig. 2 @ 40) and at least one terminal (Fig. 2 @ 30) of a communications system.

Ohanian does not teach means for indicating to the terminal the signaling protocols supported by the central unit and means for setting up via the central unit's network interface a signaling connection using a selected signaling protocol and the terminal unit . Ohanian also fails to disclose means for indicating the capability of the terminal of supporting a particular protocol in response to a message sent by the central unit and setting up via a network interface in the terminal a signaling connection.

Kudoh teaches means for indicating to the terminal the signaling protocols supported by the central unit and means for setting up via the central unit's network interface a signaling connection using a selected signaling protocol and the terminal (column 3, lines 42-45).

Kudoh discloses means for indicating the capability of the terminal of supporting a particular protocol in response to a message sent by the central unit and setting up via a network interface in the terminal a signaling connection(column 4, lines 28-32 ; column 5,lines 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kudoh's signaling protocol unit

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with Ohanian's network with the motivation being to provide capability for the system to communicate with the terminal and the central unit.

Regarding claim 11, the combination of Ohanian and Kudoh teaches optical fiber (column 2, lines 31-34 of Ohanian).

Allowable Subject

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (703) 308-9554.

The examiner can normally be reached on M-F (from 8:am to 5:pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao Seema can be reached on (703) 308-5463. The fax number is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application of proceeding should be directed to the group receptionist whose telephone number is (703) 305-4750.

A. Boakye

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Seema S. Rao
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